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| Question | Answer |
| 6.1 | Yes, Float is the top type in the sub-typing hierarchy. |
| 6.2 | Yes, the single maximal type in the hierarchy is **Float**. |
| 6.4 | Expression: A vector [0.5, 0.3, 0.2, 0.4, 0.1, 0, 0]  Typing Proof:   1. For Vector(5, PosProb):    * The first five elements [0.5, 0.3, 0.2, 0.4, 0.1] are all positive probabilities (PosProb), which meet the requirement for PosProb.    * The vector can be truncated to the first 5 elements for this type. 2. For Vector(7, Prob):    * All seven elements [0.5, 0.3, 0.2, 0.4, 0.1, 0, 0] are non-negative, making them valid probabilities (Prob).    * The length and the type of elements fit the required Vector(7, Prob) type.   Store the Example:   * The expression [0.5, 0.3, 0.2, 0.4, 0.1, 0, 0] will be stored for further use in Ex 6.5. |
| 6.5 | The type checker would return Vector(7, Prob) as the type for the vector [0.5, 0.3, 0.2, 0.4, 0.1, 0, 0]. |